

said impurities at said temperature, to form a solid titaniferous phase and a liquid oxide phase containing said impurities;

ii) cooling the heated solid titaniferous material and liquid oxide phase to form a solidified material comprising a titaniferous phase and an impurity containing phase that is leachable in an acid or alkaline leachant; and

iii) leaching the solidified material with an acid leachant[, ] or an alkaline leachant [or a sequential combination of an acid and an alkaline leachant,] to leach at least a portion of said impurities.

Please cancel Claim 22 without prejudice or disclaimer of the subject matter thereof add the following new claims:

--25. A process upgrading of a titaniferous material by removal of impurities, comprising the steps of:

i) heating a titaniferous material containing impurities under reducing conditions at a temperature of less than 1300°C in the presence of an amount of an additive which promotes formation of a liquid oxide phase containing said impurities at said temperature, to produce thereby a solid titaniferous phase and a liquid oxide phase containing said impurities;